

Fig.1

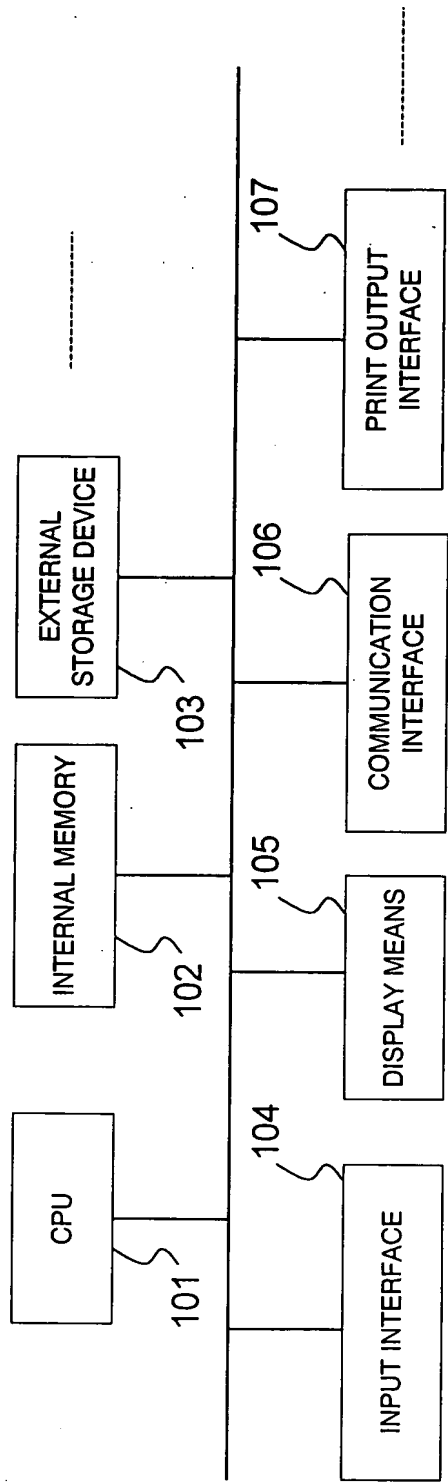


Fig. 2

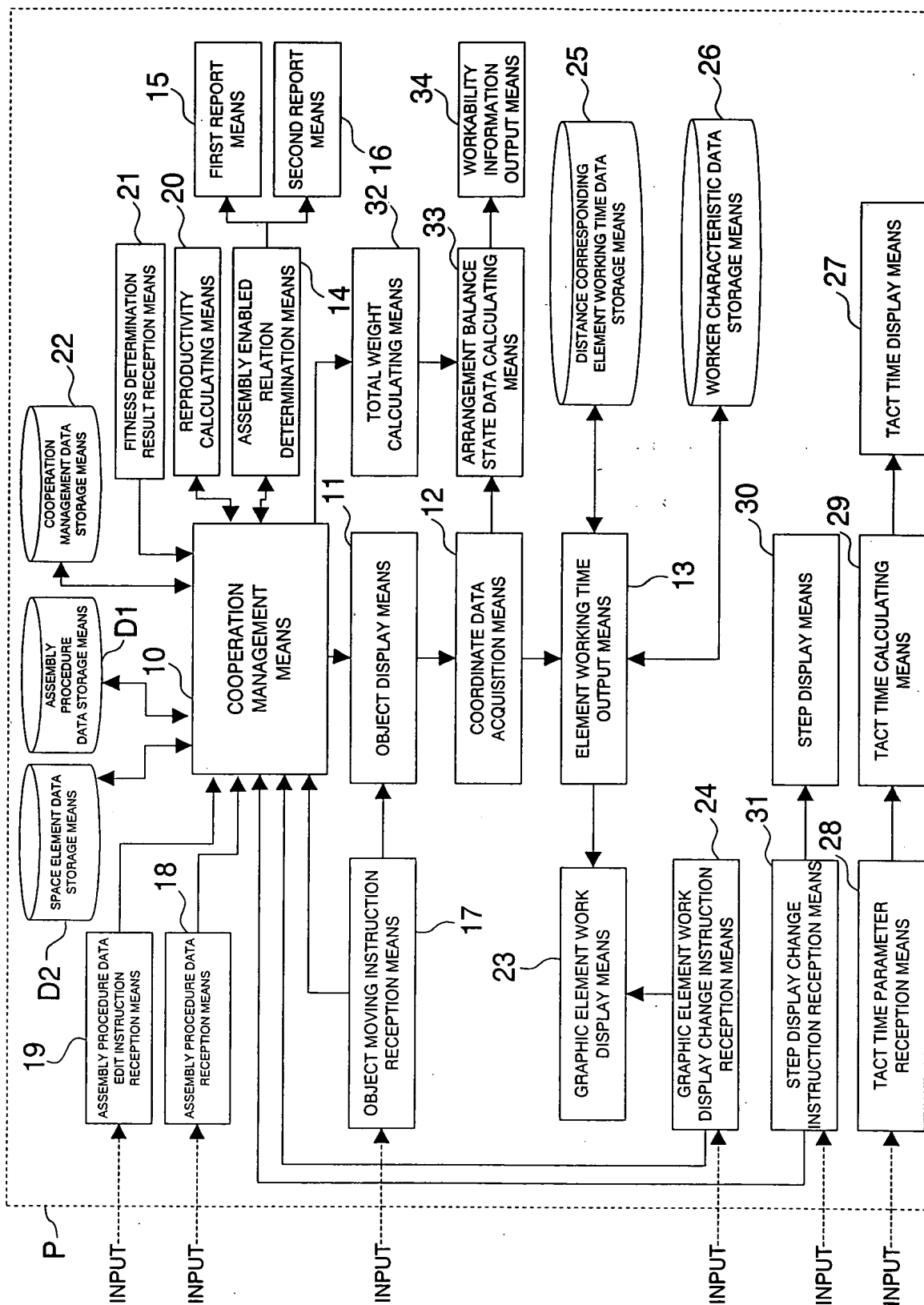


Fig.3

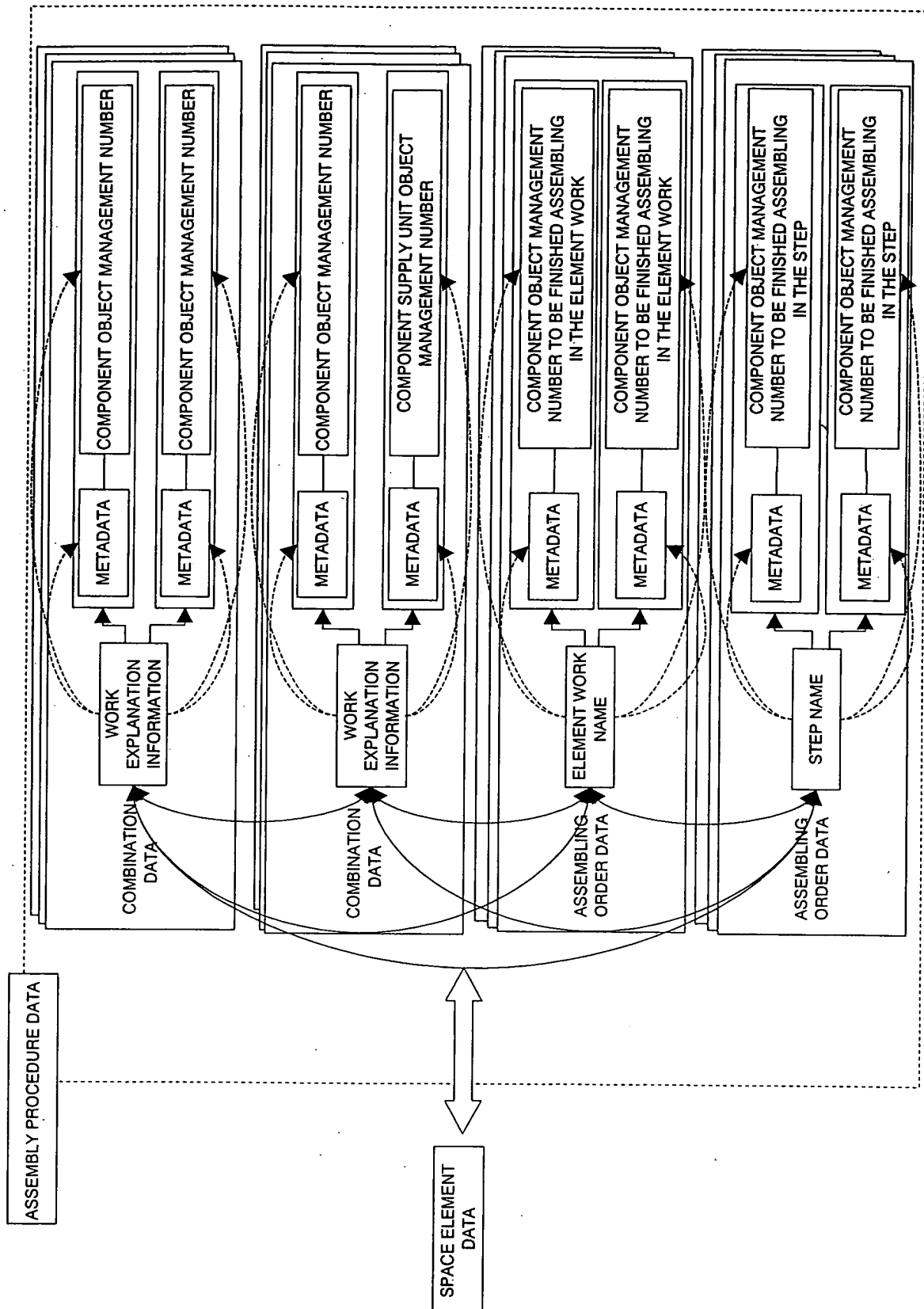


Fig.4

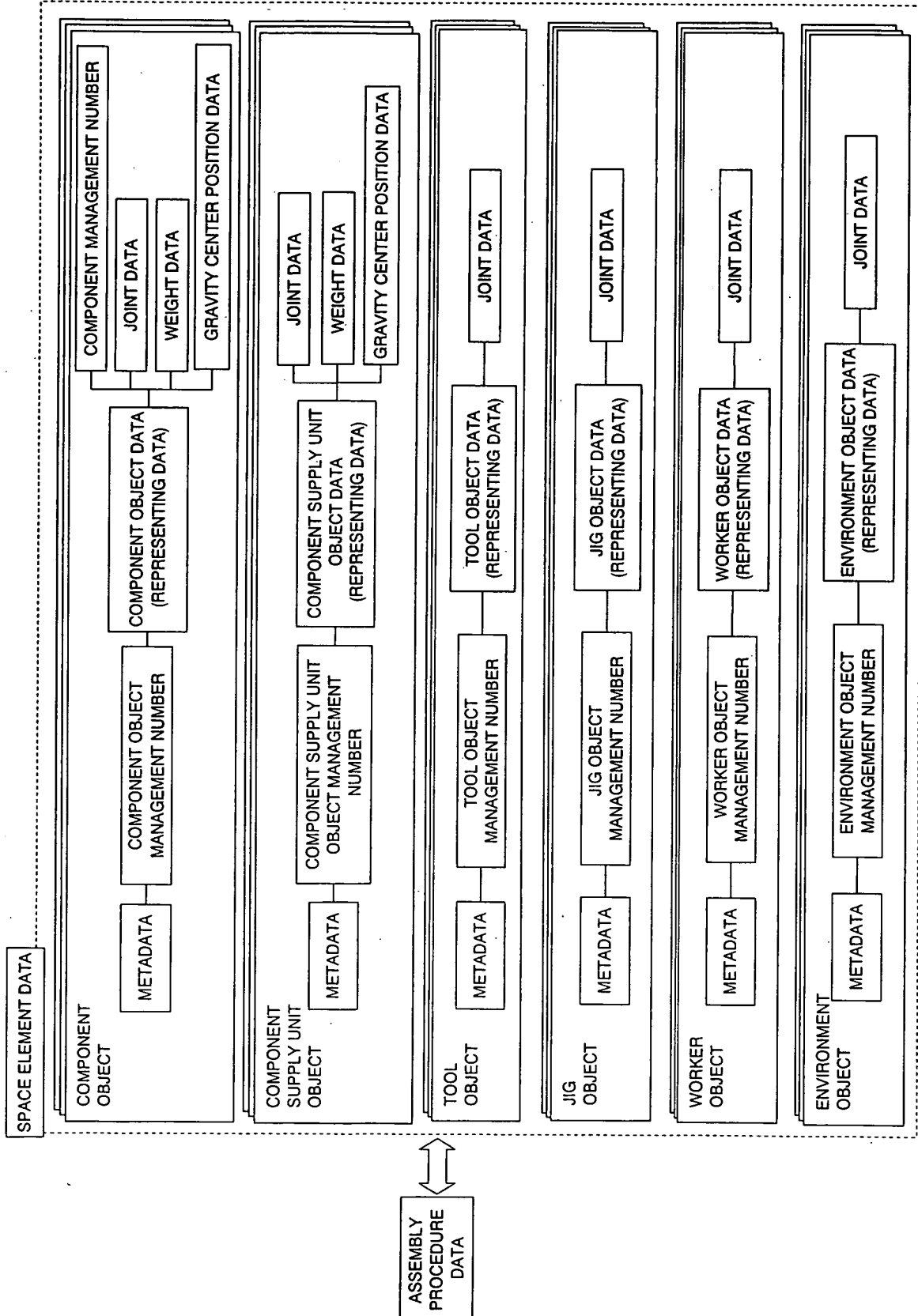
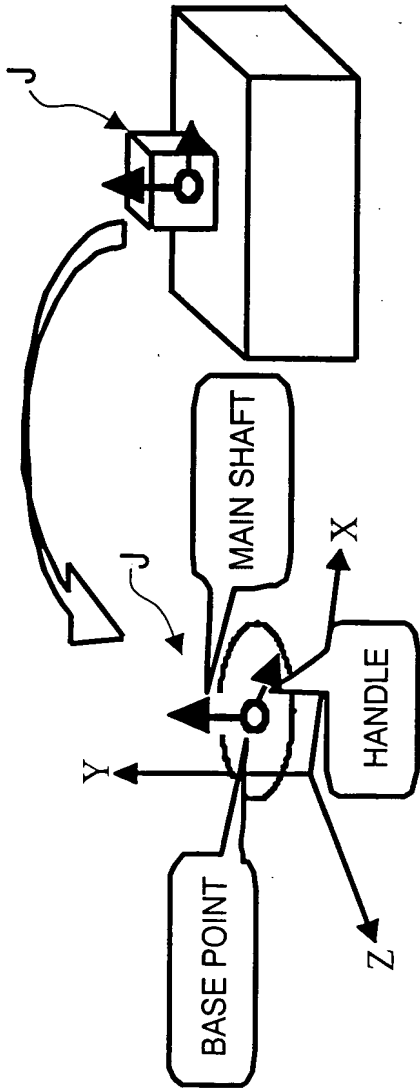


Fig.5



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Fig.6

COMPONENT SUPPLY UNIT OBJECT MANAGEMENT NUMBER	METADATA	COMPONENT NUMBER OF COMPONENT SUPPLY UNIT IN REAL SPACE	COMPONENT OBJECT MANAGEMENT NUMBER TO BE ABLE TO HOLD
BKT001	PLT1	bkt001	A001
			A002
			A003
			A004
			A005
BKT002	PLT2	bkt002	A001
			A002
			A003
⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮

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Fig.7

COMPONENT OBJECT MANAGEMENT NUMBER	METADATA	COMPONENT NUMBER OF COMPONENT IN REAL SPACE	COMPONENT OBJECT MANAGEMENT NUMBER OF ASSEMBLY ENABLED COMPONENT
A001	BRK	a001	B001
			B002
			B003
A002	BRKLP	a002	B004
			B005
			B006
.	.	.	.
.	.	.	.
.	.	.	.

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Fig.8

COMPONENT OBJECT MANAGEMENT NUMBER	METADATA	COMPONENT OBJECT DATA (REPRESENTING DATA)	JOINT DATA	MASS DATA	GRAVITY CENTER POSITION DATA	COMPONENT NUMBER
A001						a001
A002						a002
A003						a003
A004						a004
A005						a005
A006						a006
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.



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Fig.9

COMPONENT SUPPLY UNIT OBJECT MANAGEMENT NUMBER	METADATA	COMPONENT SUPPLY UNIT OBJECT DATA (REPRESENTING DATA)	JOINT DATA	MASS DATA	GRAVITY CENTER POSITION DATA
BKT001					
BKT002					
BKT003					
BKT004					
BKT005					
BKT006					
BKT007					
BKT008					
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.

ELEMENT WORK NAME	COMPONENT OBJECT MANAGEMENT NUMBER OF ASSEMBLED COMPONENT IN THE ELEMENT WORK				
P1	A001	A002			
P2	A001	A002	A003		
P3	A001	A002	A003	A004	
P4	A001	A002	A003	A004	A005
P5	B001	B002			
P6	B001	B002	B003		
P7	B001	B002	B003	B004	
P8	B001	B002	B003	B004	B005
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.

**Fig. 11**

STEP NAME	COMPONENT OBJECT MANAGEMENT NUMBER OF ASSEMBLED COMPONENT IN THE STEP					
K1	A001	A002	A003	A004		
K2	A001	A002	A003	A004	A005	
K3	B001	B002	B003			
K4	B001	B002	B003	B004	B005	B006
K5	C001	C002	C003	C004		
K6	C001	C002	C003	C004	C005	C006
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.

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Fig.12

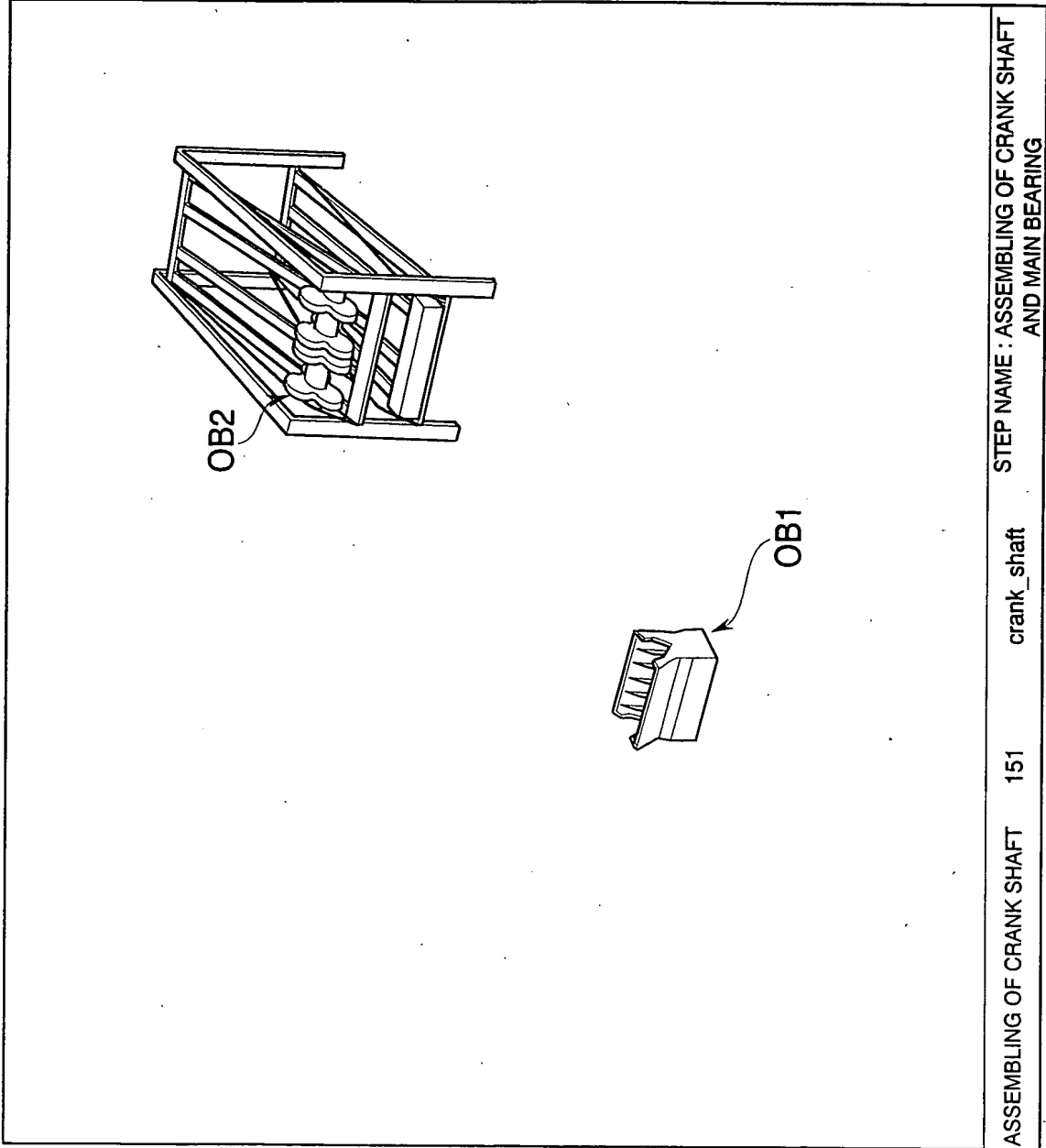


Fig.13

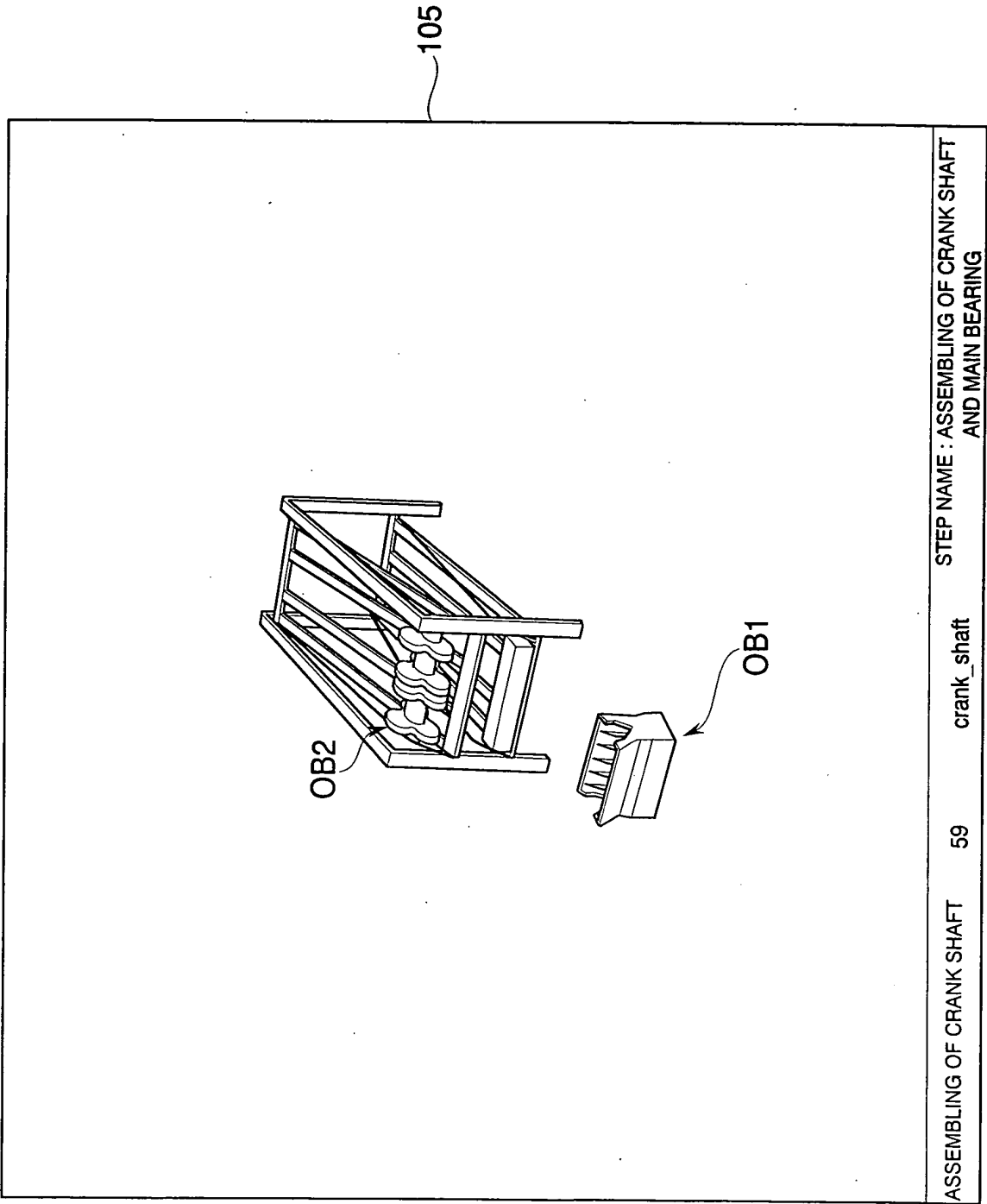
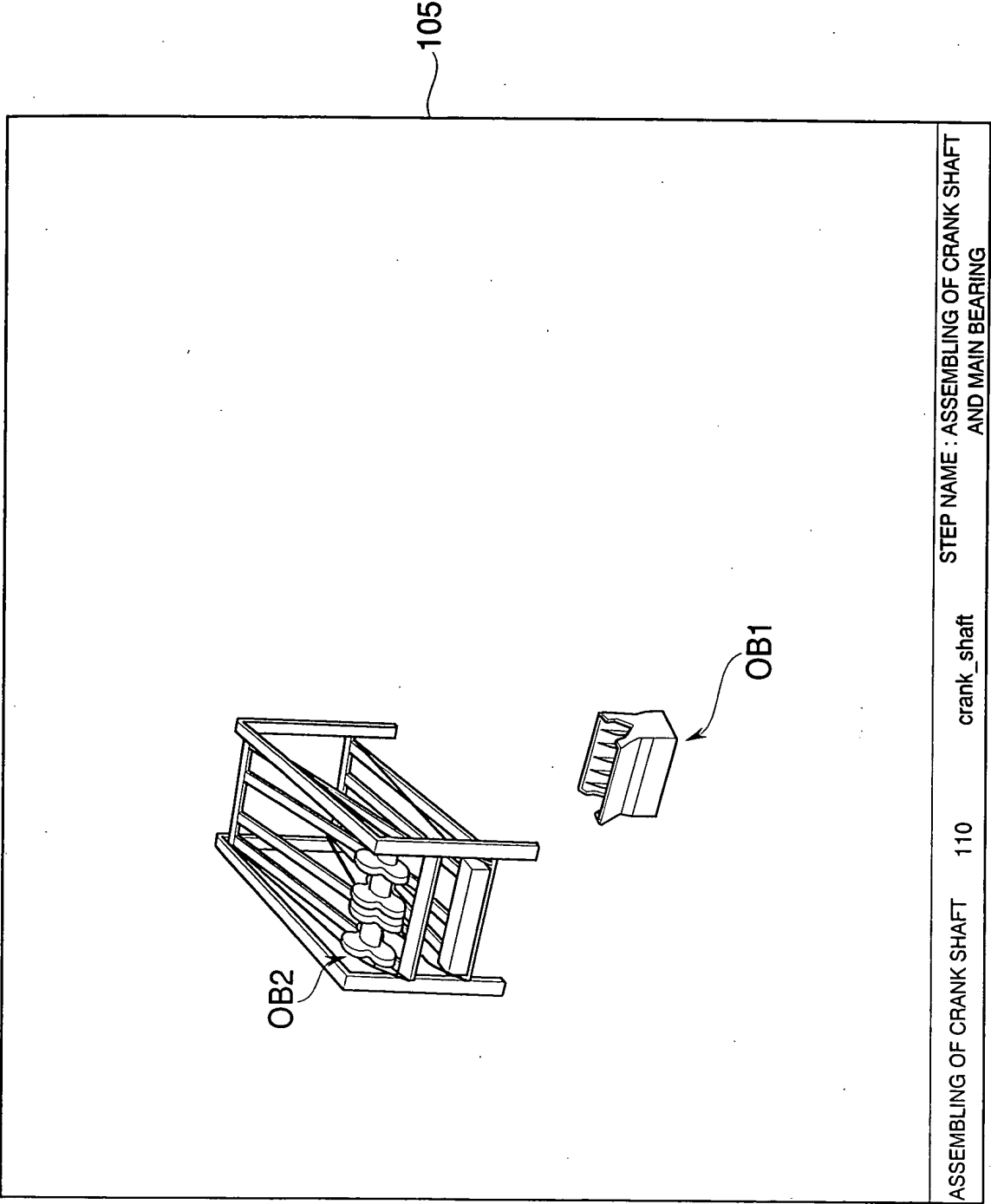


Fig.14



ASSEMBLING OF CRANK SHAFT	110	crank_shaft	STEP NAME : ASSEMBLING OF CRANK SHAFT AND MAIN BEARING
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Fig.15

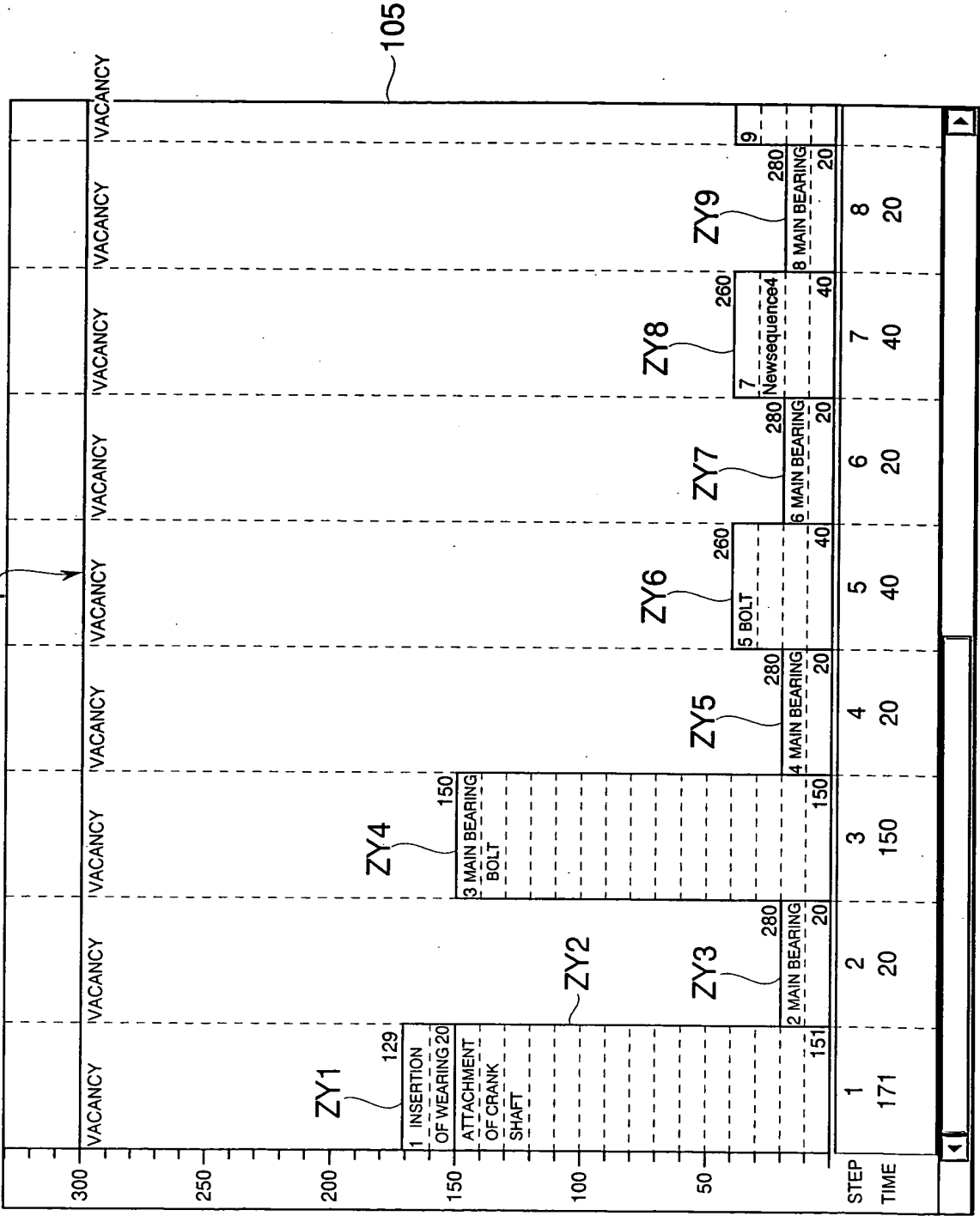


Fig.16

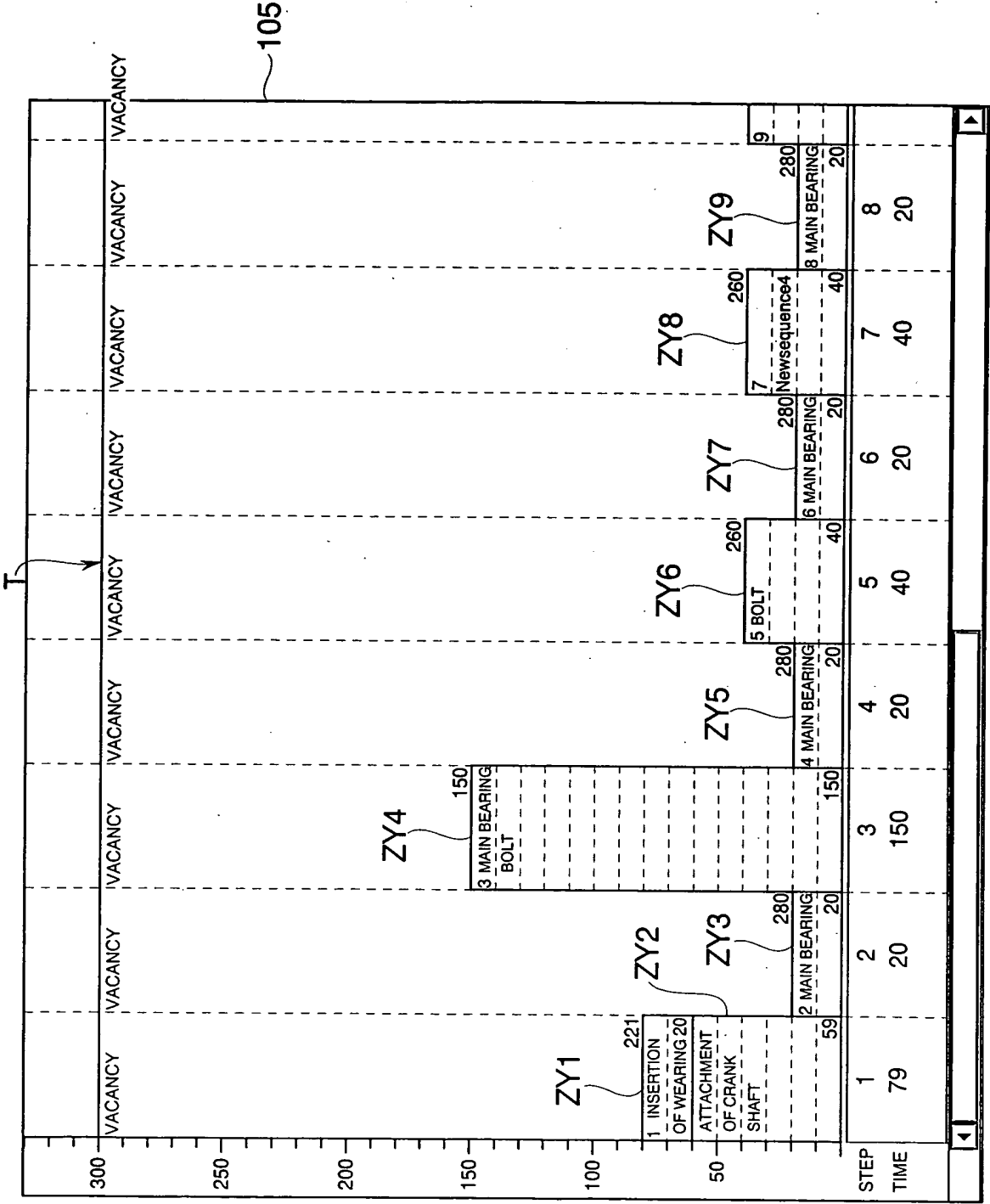




Fig.17

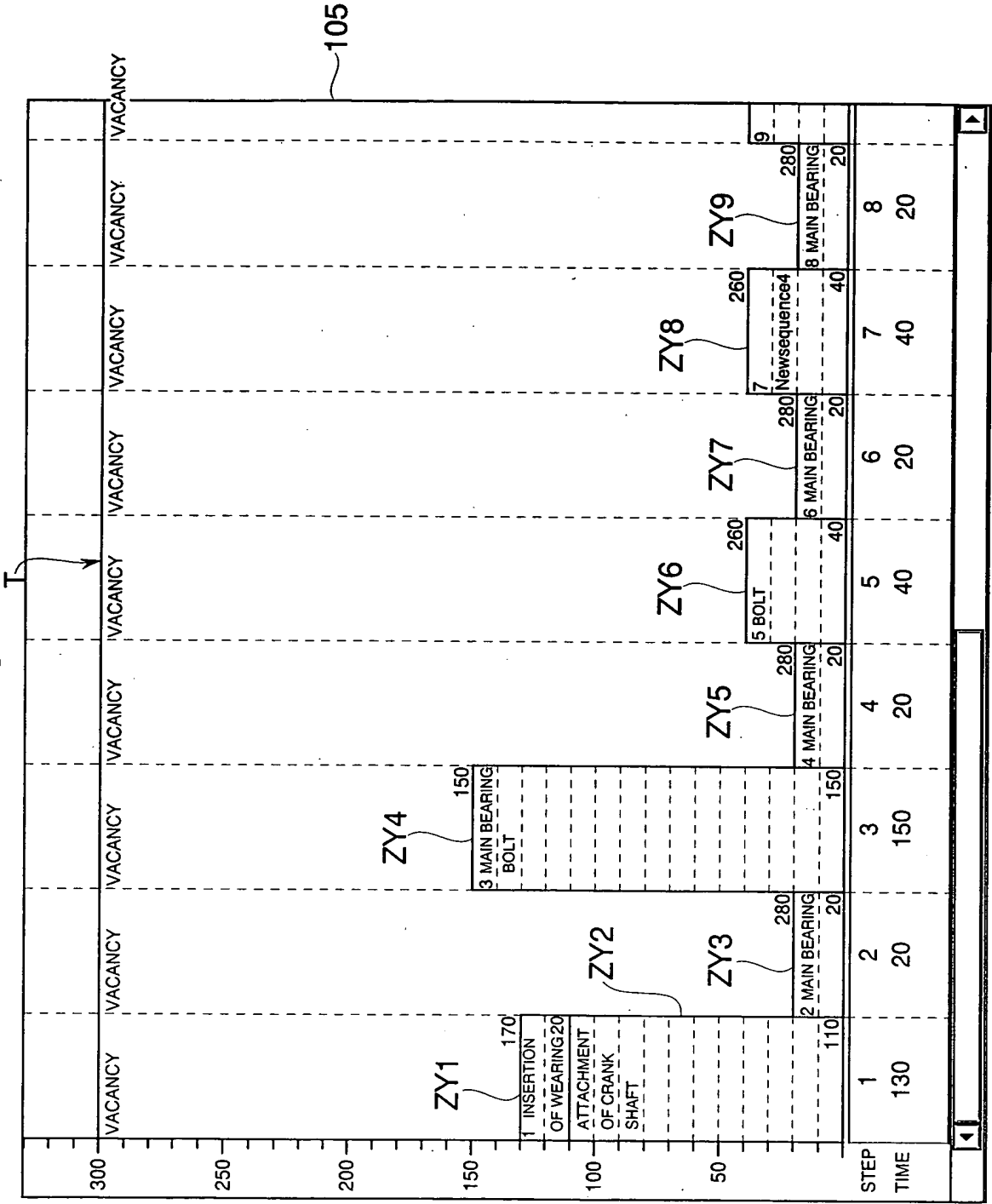
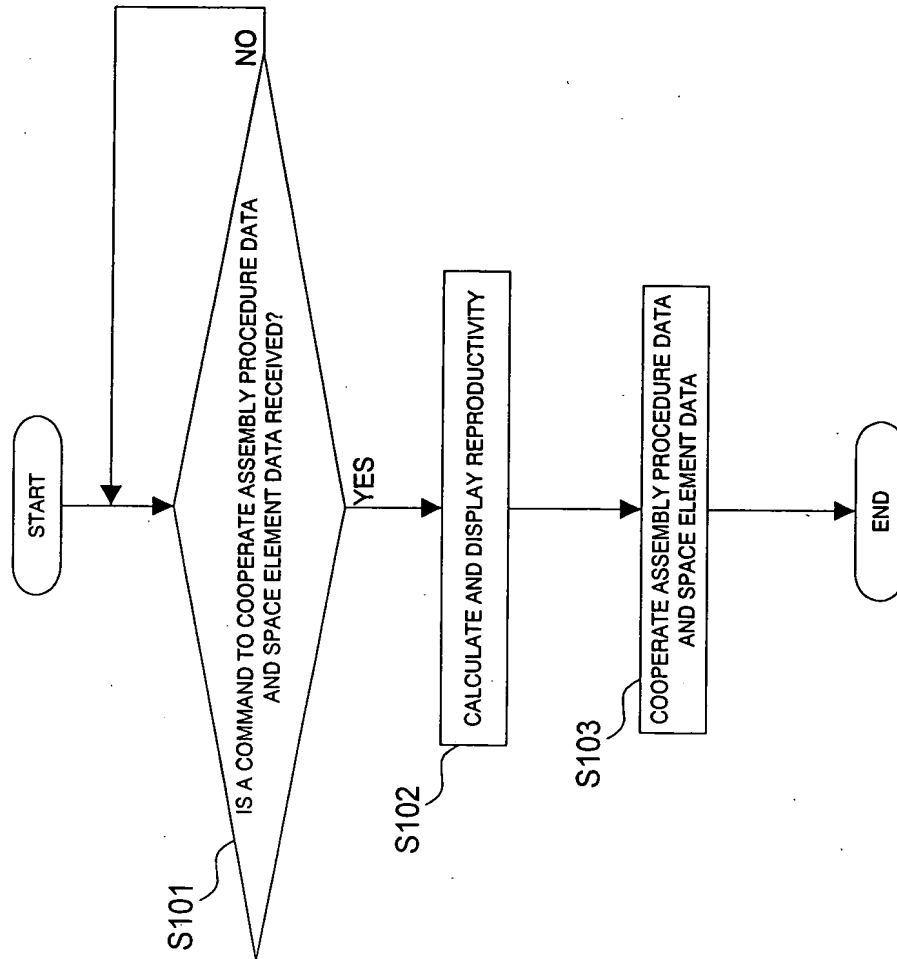


Fig.18

COMPONENT OBJECT MANAGEMENT NUMBER	COMPONENT OBJECT MANAGEMENT NUMBER	DISTANCE (m)	ELEMENT WORKING TIME (sec)
A001	A002	0.50	1.0
		1.00	1.1
		1.50	1.2
		2.00	1.3
		2.50	1.4
A001	A003	0.50	1.0
		1.00	1.5
		1.50	2.0
⋮	⋮	⋮	⋮

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Fig.19



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Fig.20

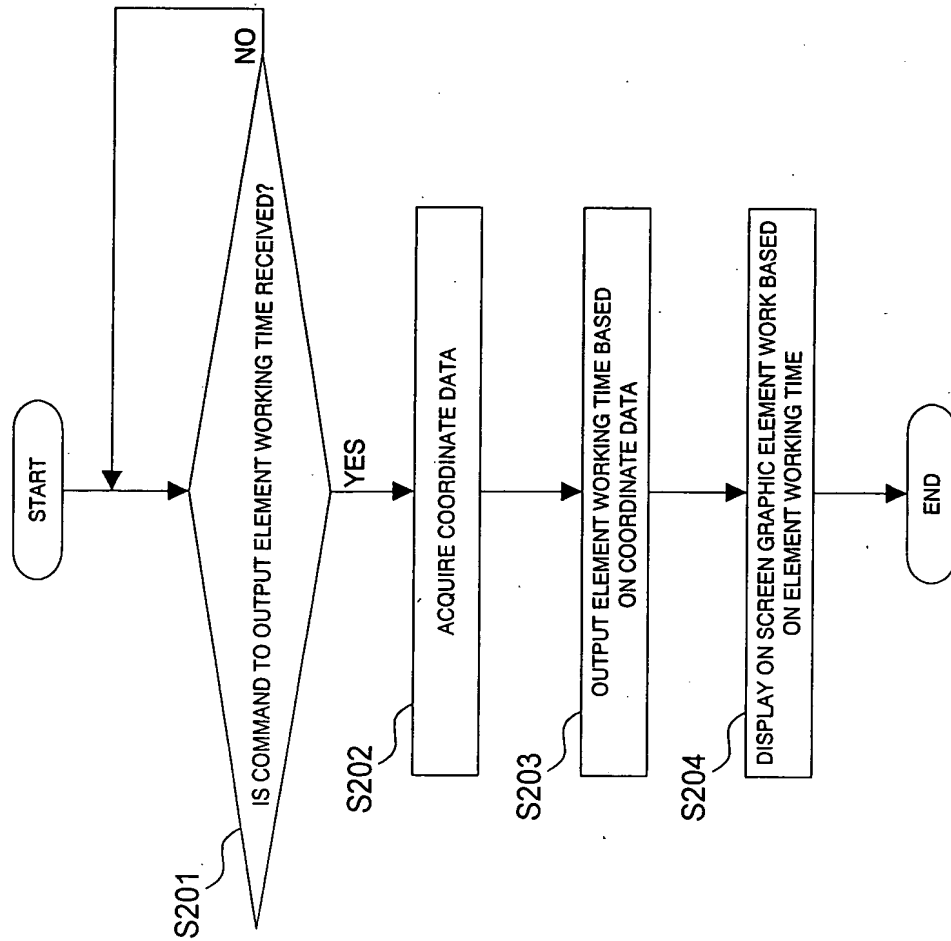


Fig.21

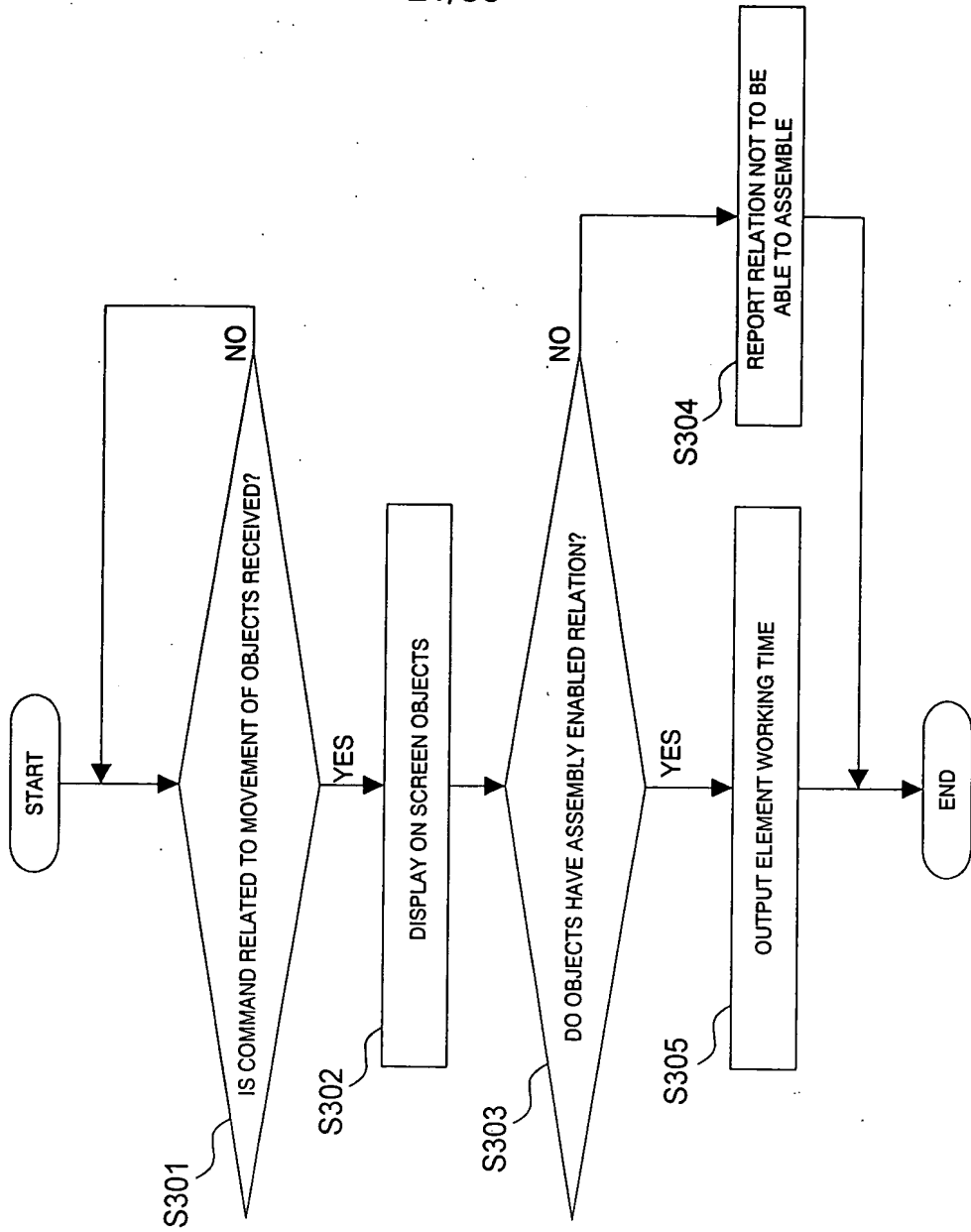
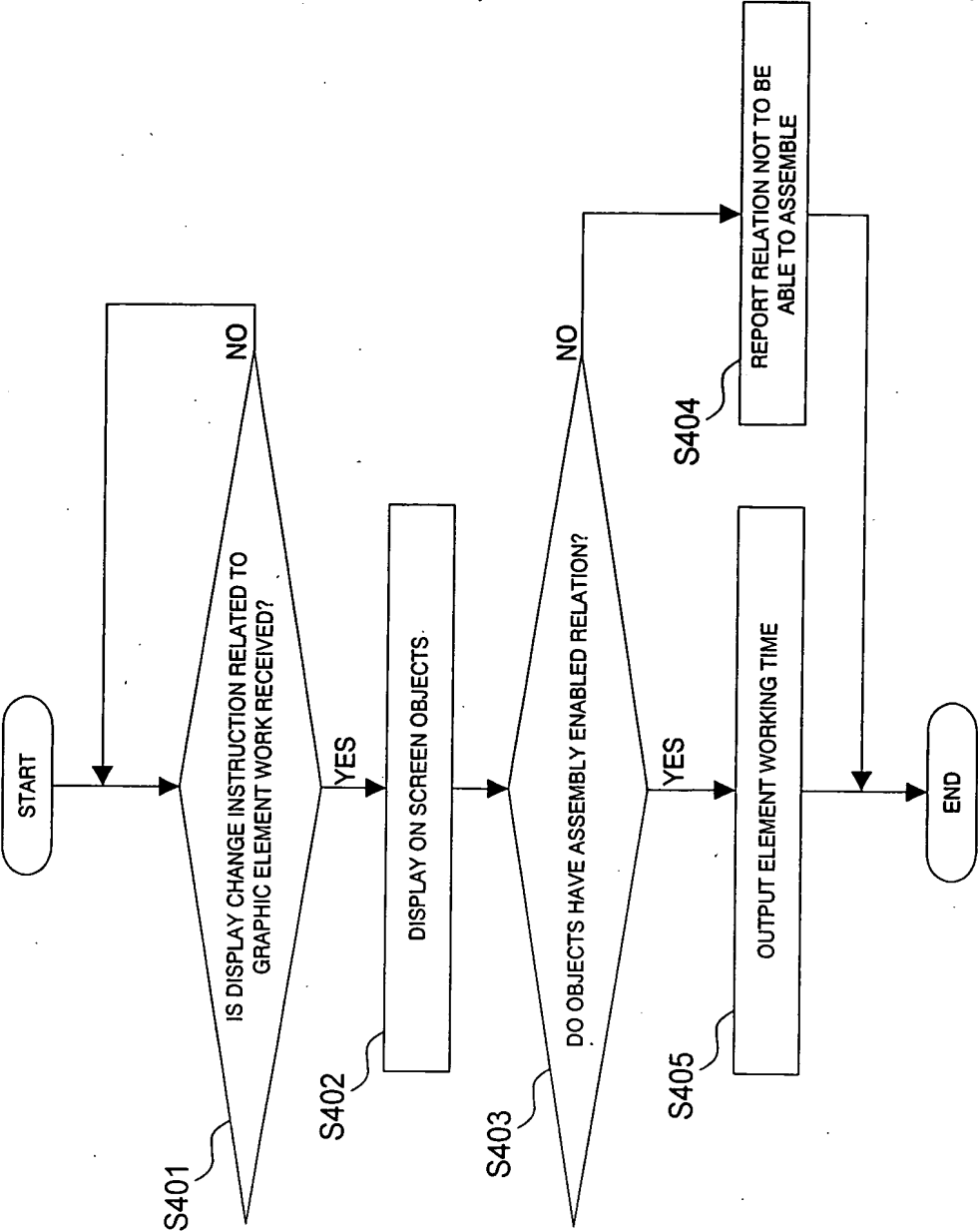
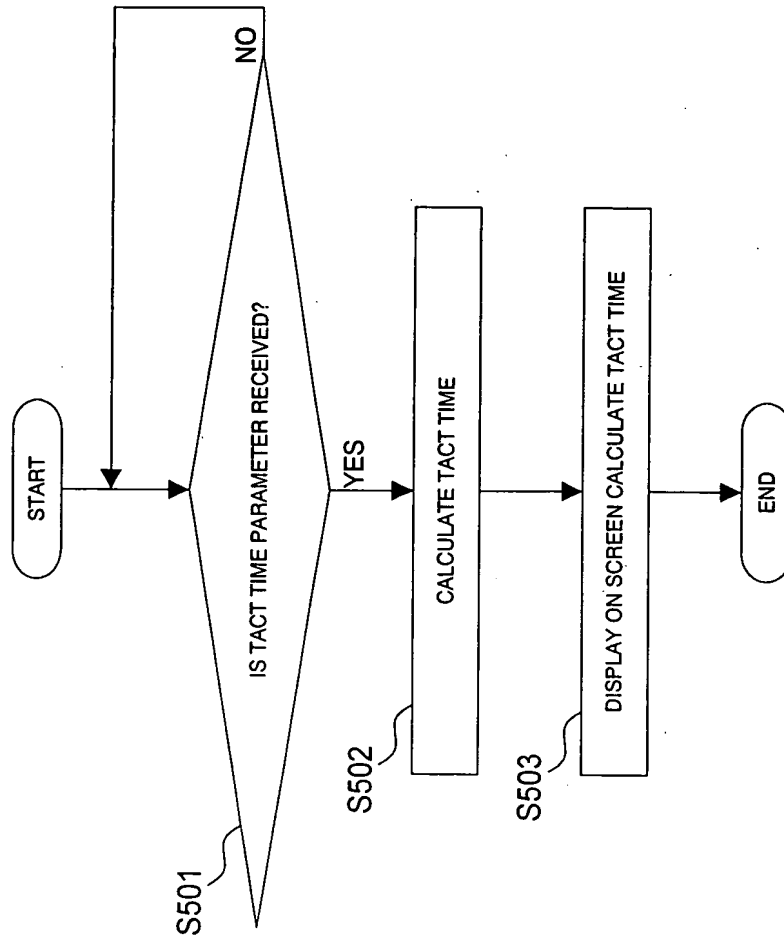


Fig.22

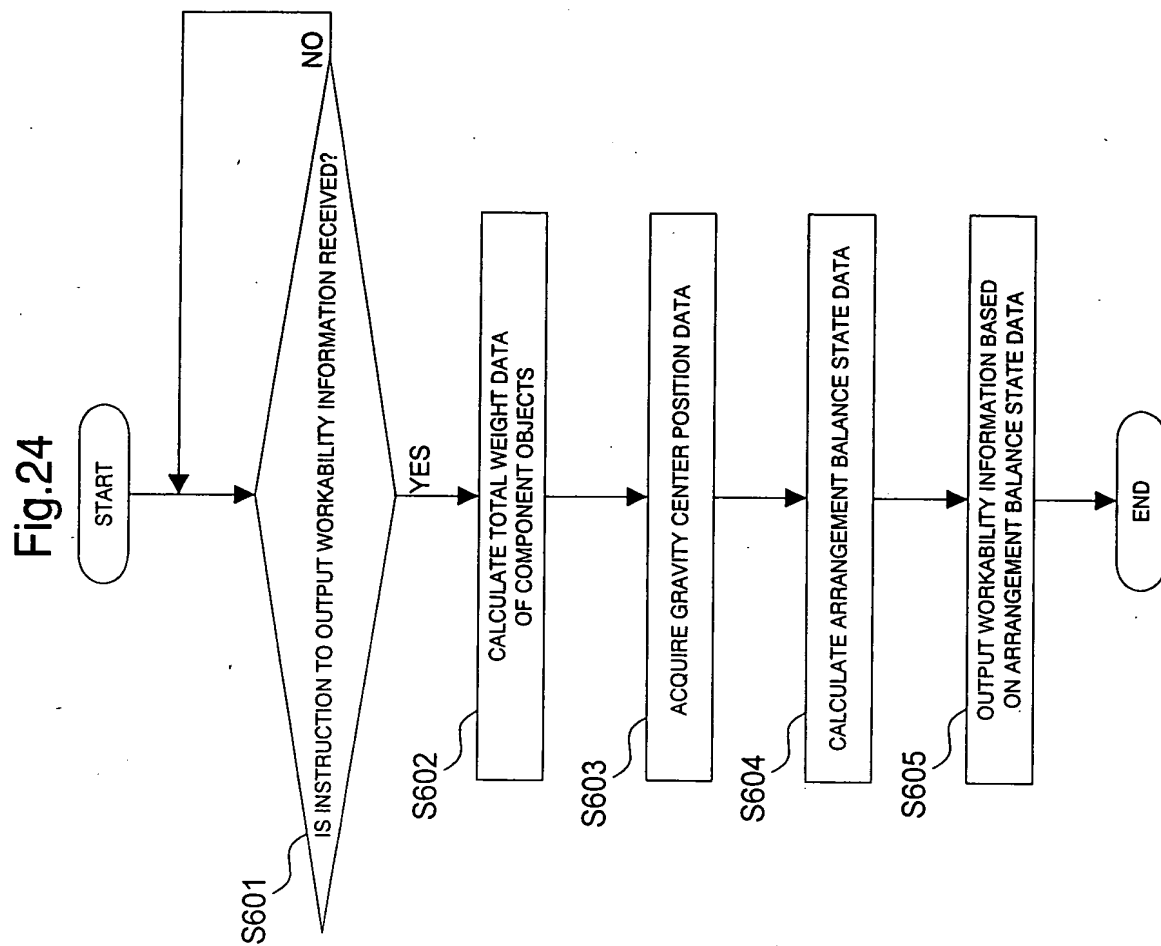


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Fig.23



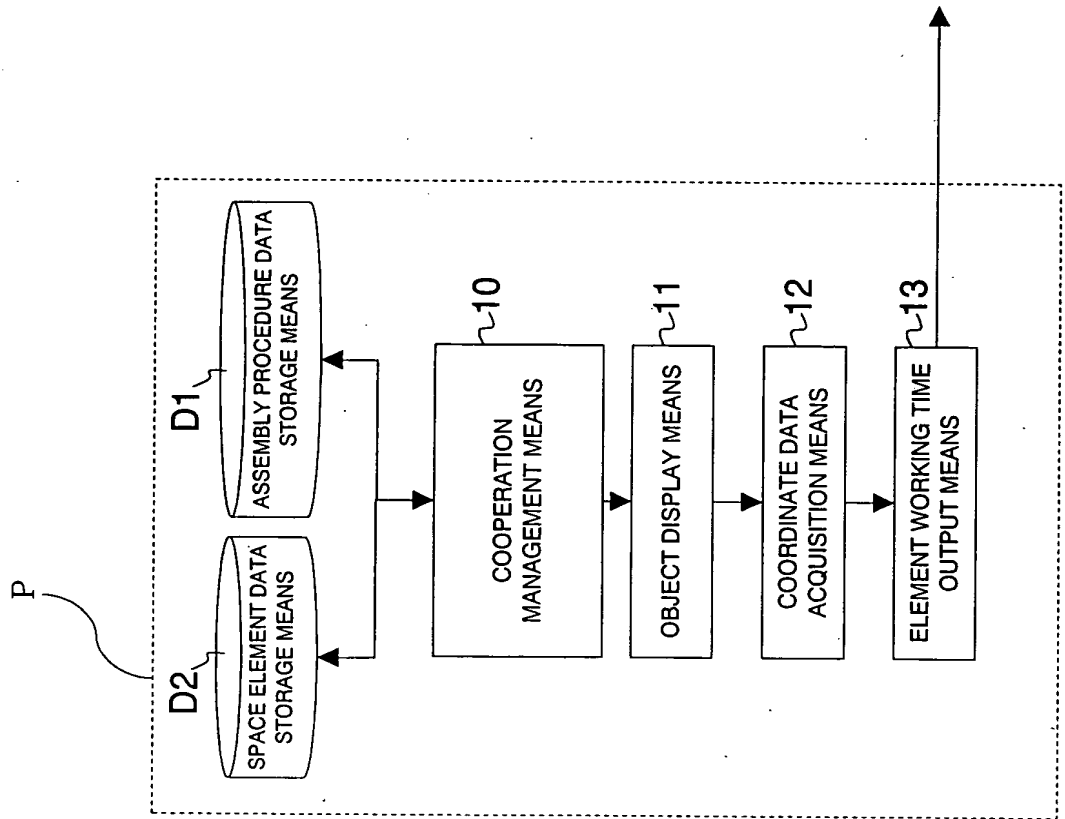
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Fig.25



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Fig.26

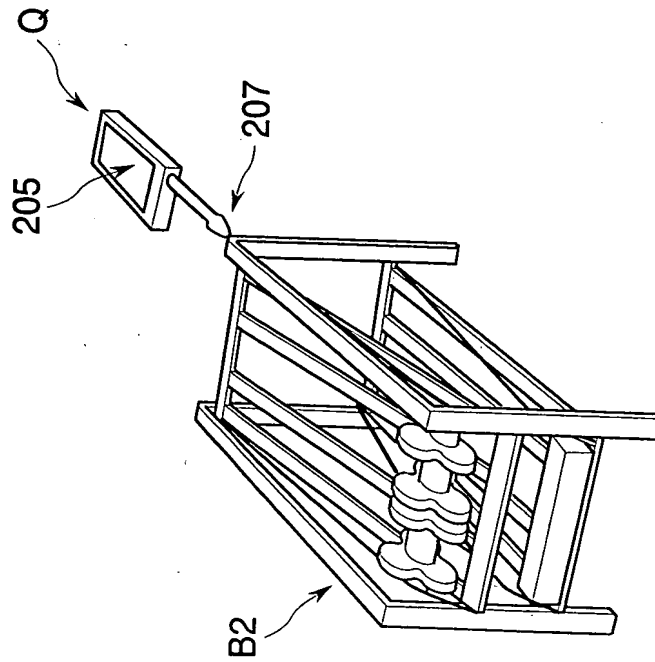
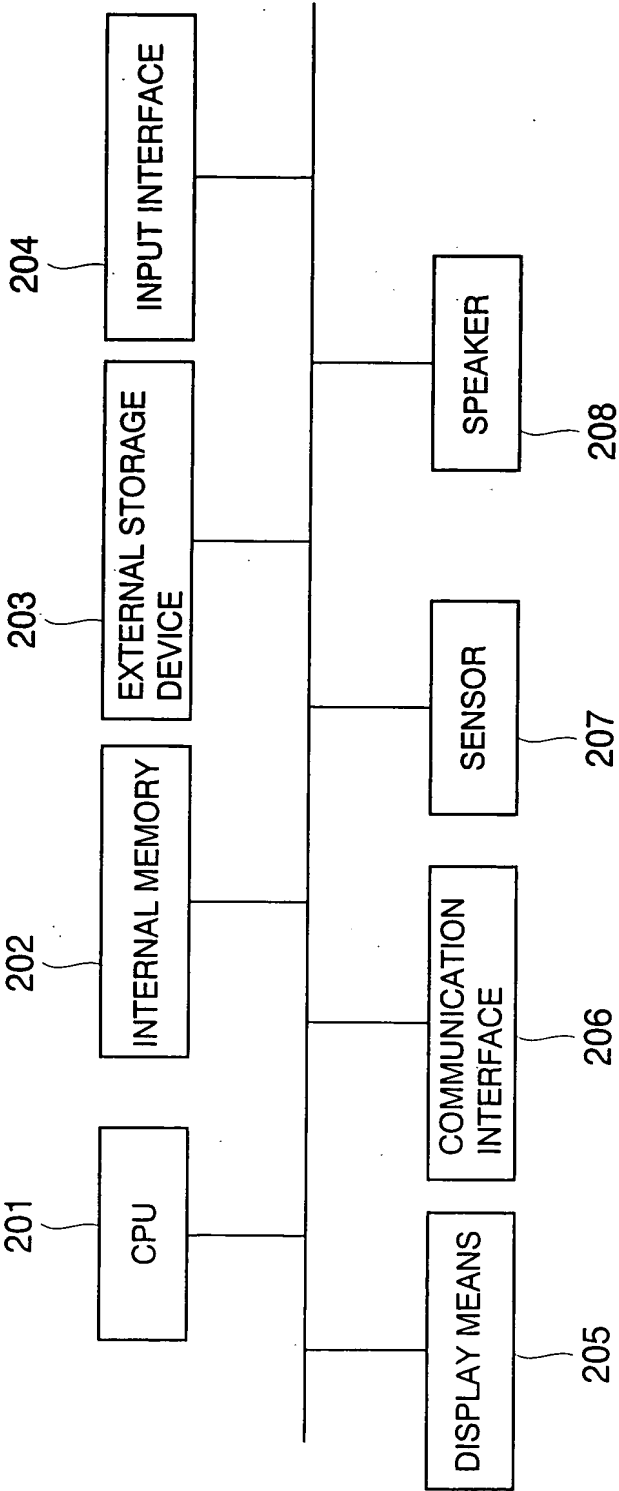
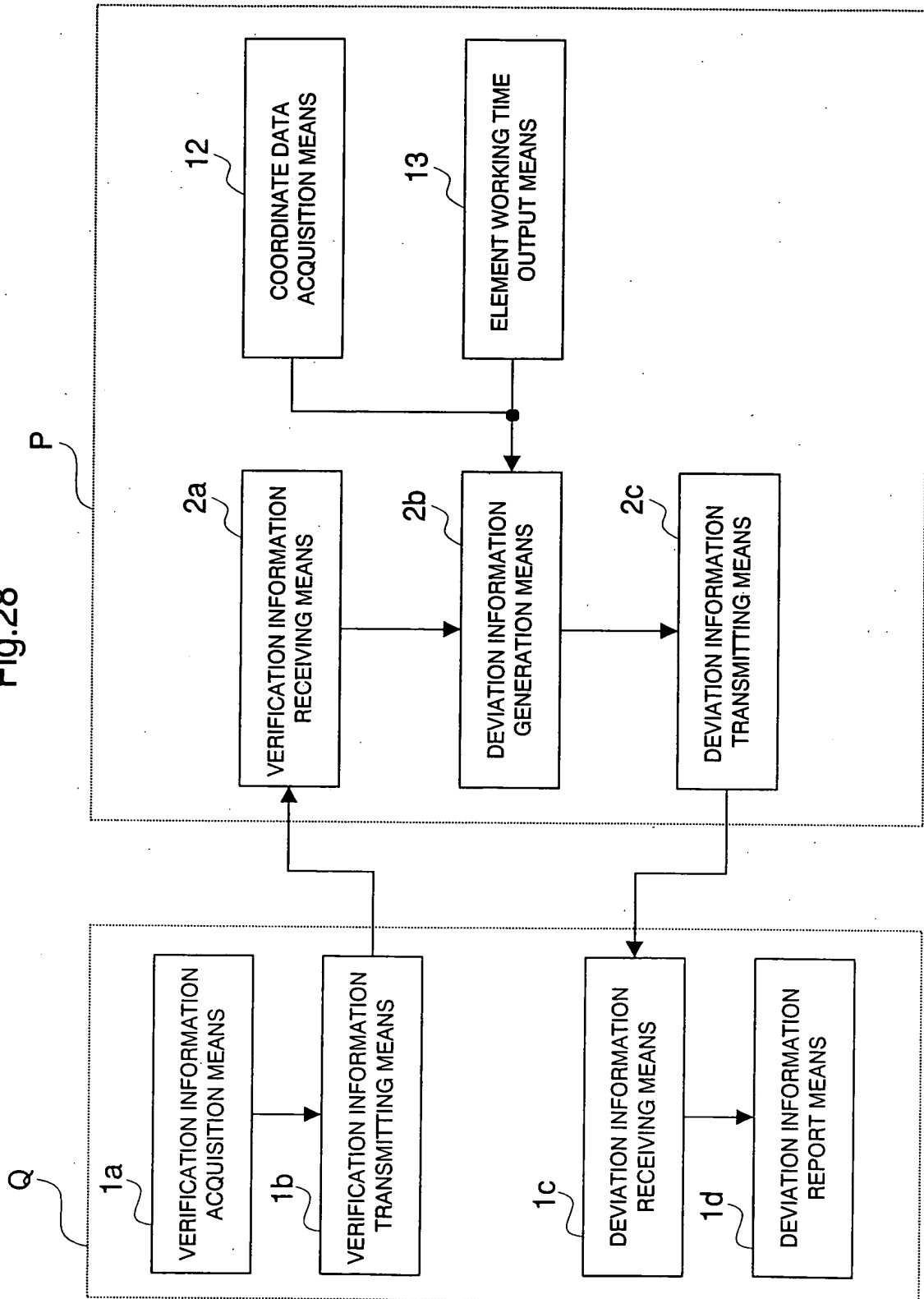


Fig.27



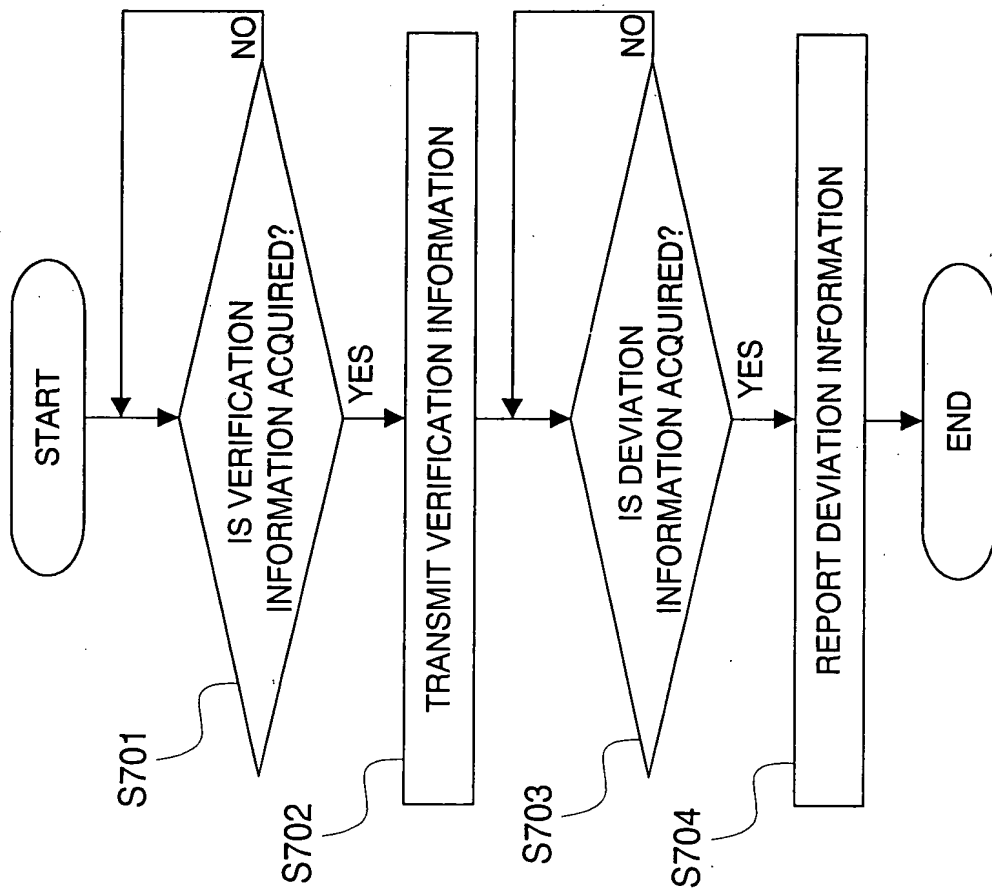
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Fig.28



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Fig.29



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Fig.30

